4-8-2010

Undergraduate Curriculum and Academic Policy Committee Minutes, April 8, 2010

Undergraduate Curriculum and Academic Policy Committee

Minutes of

April 8, 2010 Meeting

Present: Jean Edwards, Jeanne Fraker, Kathy Keister, Kathleen Kollman, Joe Law, Richard Mercer, Tony Ortiz, Bobbie Pohlman, Tom Sav, Alpana Sharma, Joe Slater, Jim Steinberg, Jamie Plamondon. Guests: Marian Hogue, Mike Reynolds.

Approved Minutes of March 10, 2010.

UCAPC Subcommittee Reports

Writing Across the Curriculum Committee (WAC) -- Joe Law, Chair, no report.

University General Education Committee (UGEC) -- Jean Edwards, Chair, no report.

Undergraduate Academic Program Review Committee (UAPRC) -- Susan Carrafiello, Chair, the committee will meet on April 21 to review Liberal Studies program submission.

Course Inventory and Modification Requests

CECS

Reviewed the following Semester Proposals

Workflow ME Courses

LC

Approved Inventories: EMS 201*, EMS 202*, EMS 203*, EMS 204*, EMS 205*.

* As agreed by the LC representative, the committee changed the enrollment restriction.

Program Changes

None

New Programs

None

Academic Policies

Approved

Definition of Transfer Student

Reviewed and returned the following proposal for additional work.

Conversion and Application of Quarter Hours to Semester Hours

Adjourned: Subject to resolution of the semester workload, the committee will hold meetings every Thursday at 2:15 p.m. for the approval of semester proposals. Senate meetings for approvals are as follows:

UCAPC Meeting	UCAPC Submission Deadline (No Exceptions: receipt after forwards to the next meeting)	Faculty Senate Meeting New Business	Faculty Senate Meeting Old Business
April Meetings	One week prior to UCAPC meetings. 12:00 Noon	May 3	June 7
May Meetings	One week prior to UCAPC meetings. 12:00 Noon	June 7	Fall 2010

UCAPC HOME

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1382 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/14/10 WorkFlow	**VERSION:** CURR **COURSE:** ME102 - Engineering Programming with Matlab **EFFECTIVE:** Winter 2010 **COURSE DESC:** Introduces a broad range of programming concepts using Matlab. Covers concepts such as functions, loops, logic control, graphical user interface generation, computer IO, and communication between disparate languages. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture QTR PREREQ: EGR 101 QTR EQUIV: ME 102
	VERSION: REV **COURSE:** ME1020 - Engineering Programming with Matlab **EFFECTIVE:** Fall 2012 **COURSE DESC:** Introduces a broad range of programming concepts using Matlab. Covers concepts such as functions, loops, logic control, graphical user interface generation, computer IO, and communication between disparate languages. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture SEM PREREQ: EGR 1010 SPC FEE: Egr&Comp Science Fee (1600), $67.5 QTR PREREQ: EGR 101 QTR EQUIV: ME 102

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1383 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME199 - Fund of Engineering Design **EFFECTIVE:** Winter 2010 **COURSE DESC:** Introduction to the principles and practice of mechanical and materials engineering design. Fundamental design philosophy using a hands-on approach, including topics such as safety, ethics, and product liability. Teamwork and communicated skills are stressed. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Classifications: Sophomore Freshman QTR EQUIV: ME 199
	VERSION: REV **COURSE:** ME1030 - Fund of Engineering Design **EFFECTIVE:** Fall 2012 **COURSE DESC:** Introduction to the principles and practice of mechanical and materials engineering design. Fundamental design philosophy using a hands-on approach, including topics such as safety, ethics, and product liability. Teamwork and communication skills are stressed. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 8 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Classifications: Sophomore Freshman SPC FEE: Egr&Comp Science Fee (1600), $67.5 QTR EQUIV: ME 199

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1386 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME202 - Mech Drawing Solid Modl Design **EFFECTIVE:** Winter 2010 **COURSE DESC:** Basic concepts of engineering drawing with applications to manual and computer-aided drafting: multiview projections; sectional, auxiliary, and pictorial views; dimensioning; and intersections and developments. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture QTR EQUIV: ME 202
	VERSION: REV **COURSE:** ME2020 - Mech Drawing Solid Modl Design **EFFECTIVE:** Fall 2012 **COURSE DESC:** Basic concepts of engineering drawing with applications to manual and computer-aided drafting: multiview projections; sectional, auxiliary, and pictorial views; dimensioning; intersections and developments; introduction to finite element tools. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture/Lab Combination SPC FEE: Egr&Comp Science Fee (1600), $90 QTR EQUIV: ME 202

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1212 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/21/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME212 - Statics **EFFECTIVE:** Winter 2010 **COURSE DESC:** Forces, resultants, components, equilibrium of particles, equilibrium of rigid bodies, centroids and centers of gravity, analysis of structures, friction, and moments of inertia. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture QTR PREREQ: (Undergraduate level MTH 231 Minimum Grade of D or Undergraduate level EGR 101 Minimum Grade of D) and Undergraduate level PHY 240 Minimum Grade of D QTR EQUIV: ME 212
	VERSION: REV **COURSE:** ME2120 - Statics **EFFECTIVE:** Fall 2012 **COURSE DESC:** Forces, resultants, components, equilibrium of particles, equilibrium of rigid bodies, centroids and centers of gravity, analysis of structures, friction, and moments of inertia. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture SEM PREREQ: (Undergraduate level MTH 2310 Minimum Grade of D or Undergraduate level EGR 1010 Minimum Grade of D) and Undergraduate level PHY 2400 Minimum Grade of D SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: (Undergraduate level MTH 231 Minimum Grade of D or Undergraduate level EGR 101 Minimum Grade of D) and Undergraduate level PHY 240 Minimum Grade of D QTR EQUIV: ME 212

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1387 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME213 - Dynamics **EFFECTIVE:** Winter 2010 **COURSE DESC:** Vector treatment of the kinematics and kinetics of particles and rigid bodies, based on Newton's laws and including work-energy and impulse-momentum techniques. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture QTR PREREQ: Undergraduate level ME 212 Minimum Grade of C and (Undergraduate level ME 102 Minimum Grade of D or Undergraduate level CEG 220 Minimum Grade of D) QTR EQUIV: ME 213
	VERSION: REV **COURSE:** ME2210 - Dynamics **EFFECTIVE:** Fall 2012 **COURSE DESC:** Vector treatment of the kinematics and kinetics of particles and rigid bodies, based on Newton's laws and including work-energy and impulse-momentum techniques. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture SEM PREREQ: Undergraduate level ME 2120 Minimum Grade of C and (Undergraduate level ME 1020 Minimum Grade of D or Undergraduate level CEG 2200 Minimum Grade of D) SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 212 Minimum Grade of C and (Undergraduate level ME 102 Minimum Grade of D or Undergraduate level CEG 220 Minimum Grade of D) QTR EQUIV: ME 213

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1460 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** REV **COURSE:** ME2610 - Materials Lab **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course will introduce the student to the basic experimental methods needed to characterize the microstructure of solid and powder materials. This course heavily emphasizes the relationships between the mechanical processing of a metal material, the resulting microstructure of that material, and the effects of microstructural changes on mechanical properties. This skills-based class focuses on metallographic sample preparation and optical microscopy **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lab COREQ: ME 2700 SPC FEE: Egr&Comp Science Fee (1600), $45 QTR PREREQ: Undergraduate level ME 370 Minimum Grade of D (ME 370 can be taken concurrently) QTR EQUIV: ME 497

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1462 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME370 - Material Engineering Sci:Intro **EFFECTIVE:** Winter 2010 **COURSE DESC:** Effect of atomic, molecular, and crystalline structure on the properties of materials with emphasis on electronic materials and ceramics; characterization of materials; and device fabrication. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level CHM 121 Minimum Grade of D and Undergraduate level PHY 244 Minimum Grade of D QTR EQUIV: ME 370
	VERSION: REV **COURSE:** ME2700 - Structure and Properties of Materials I **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course covers the fundamentals of the structures of solids and their effect on the mechanical properties of metals, poymers, and ceramics. Additional topics include phase diagrams and heat treatment. An overview of engineering materials is also presented **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: CHM 1210, PHY 2440 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level CHM 121 Minimum Grade of D and Undergraduate level PHY 244 Minimum Grade of D QTR EQUIV: ME 370

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1388 **STATUS:** Process **CREATOR:** Nathan Klingbeil **CREATED:** 12/28/09 **IN-PROCESS:** 1/14/10 WorkFlow	**VERSION:** CURR **COURSE:** ME313 - Strength of Materials **EFFECTIVE:** Winter 2010 **COURSE DESC:** Discusses axial and shear stresses and strains, bi-axial loading, torsion of circular shafts, shear and bending moment diagrams, deflection of beams, and column theory. Four hours lecture, two hours lab. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: (Undergraduate level ME 212 Minimum Grade of C or Undergraduate level ME 102 Minimum Grade of D or Undergraduate level CEG 220 Minimum Grade of D) QTR EQUIV: ME 313
	VERSION: REV **COURSE:** ME3120 - Mechanics of Materials **EFFECTIVE:** Fall 2012 **COURSE DESC:** Introduction to stress and deformation in deformable solids. Topics include axial loading, torsion, pure bending, shear stresses in beams, design of beams under transverse loading, thin-wall pressure vessels, transformation of stress, stresses under combined loadings, deflection of beams and buckling. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2120 Minimum Grade of C and (ME 1020 or CEG 2200) XLIST: ME 5120 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: (Undergraduate level ME 212 Minimum Grade of C or Undergraduate level ME 102 Minimum Grade of D or Undergraduate level CEG 220 Minimum Grade of D) QTR EQUIV: ME 313

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1162 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 12/19/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME315 - Thermodynamics I **EFFECTIVE:** Winter 2010 **COURSE DESC:** Classical thermodynamics which focuses on thermodynamic properties of fluids, conservation of mass, conservation of energy, and the second law of thermodynamics. These principles are applied to engineering problems. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: EGR 101 or MTH 231 (MTH 231 can be taken concurrently) and PHY 240 all with minimum grade of D QTR EQUIV: ME 315
	VERSION: REV **COURSE:** ME3310 - Thermodynamics I **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course studies energy and energy conversion from the classical thermodynamics perspective. Properties of fluids, conservation of mass, conservation of energy, and the second law of thermodynamics are studied. These principles are applied to engineering problems. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: EGR 1010 or MTH 2310 (MTH2310 can be taken concurrently) and PHY2400 all with minimum grade of D XLIST: ME 5310 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: EGR 101 or MTH 231 (MTH 231 can be taken concurrently) and PHY 240 all with minimum grade of D QTR EQUIV: ME 315

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1234 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 12/21/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME316 - Thermodynamics II **EFFECTIVE:** Winter 2010 **COURSE DESC:** Concepts of energy, power cycles, refrigeration cycles, gas mixutres, vapor-gas mixtures, and combustion. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: ME102 or EGR 153 or CEG 220 with minimum grade of D and ME315 with minimum grade of C QTR EQUIV: ME 316
	VERSION: REV **COURSE:** ME3320 - Thermodynamics II **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course will apply the 0th, 1st, 2nd, and 3rd laws of thermodynamics, as well as conservation of mass, to a range of classical thermodynamic systems and phenomena. These include power and refrigeration cycles, gas mixtures, ideal vapor-gas mixtures, air conditioning, combustion, and chemical equilibrium. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME1020 with minimum grade of D and ME3310 with minimum grade of C XLIST: ME 5320 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: ME102 or EGR 153 or CEG 220 with minimum grade of D and ME315 with minimum grade of C QTR EQUIV: ME 316

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1166 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 12/19/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME318 - Heat Transfer **EFFECTIVE:** Winter 2010 **COURSE DESC:** Study of the movement of energy due to a temperature difference. The three modes of heat transfer are investigated: conduction, convections and radiation. Detailed look at Heat Equation. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: MTH 235 and ME 317 all with minimum grade of D QTR EQUIV: ME 318
	VERSION: REV **COURSE:** ME3360 - Heat Transfer **EFFECTIVE:** Fall 2012 **COURSE DESC:** Study of the movement of energy due to a temperature difference. The three modes of heat transfer are investigated: conduction, convection, and radiation. Detailed look at heat equation. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 1020 and ME 3350 and MTH 2350 all with a minimum grade of D XLIST: ME 5360 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: MTH 235 and ME 317 all with minimum grade of D QTR EQUIV: ME 318

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1389 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME360 - System Dynamics **EFFECTIVE:** Winter 2010 **COURSE DESC:** Introduces students to the system level modeling of dynamic engineering systems including, but not restricted to, linear and rotational mechanical, fluid, thermal, and electrical systems. Modeling of control devices (motors, heaters, pumps) is addressed. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture QTR PREREQ: Undergraduate level EE 301 Minimum Grade of D and Undergraduate level ME 213 Minimum Grade of D and Undergraduate level ME 313 Minimum Grade of D and Undergraduate level MTH 235 Minimum Grade of D and Undergraduate level ME 317 Minimum Grade of D (ME 317 can be taken concurrently) QTR EQUIV: ME 360
	VERSION: REV **COURSE:** ME3210 - System Dynamics **EFFECTIVE:** Fall 2012 **COURSE DESC:** Introduces students to the system level modeling of dynamic engineering systems including, but not restricted to, linear and rotational mechanical, fluid, thermal, and electrical systems. Modeling of control devices (motors, heaters, pumps) is addressed. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture SEM PREREQ: EE 2010, ME 2210, ME 3120, MTH 2350 XLIST: ME 5210 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level EE 301 Minimum Grade of D and Undergraduate level ME 213 Minimum Grade of D and Undergraduate level ME 313 Minimum Grade of D and Undergraduate level MTH 235 Minimum Grade of D and Undergraduate level ME 317 Minimum Grade of D (ME 317 can be taken concurrently) QTR EQUIV: ME 360

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1391 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** REV **COURSE:** ME3350 - Fluid Dynamics **EFFECTIVE:** Fall 2012 **COURSE DESC:** Study of fluid properties, fluid statics, incompressible flows, and real fluid flows. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2210 Minimum grade of D and ME 3310 Minimum Grade of C XLIST: ME 5350 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 213 Minimum Grade of D and Undergraduate level ME 315 Minimum Grade of C QTR EQUIV: ME 317

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1546 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 1/9/10 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME496 - Engineering Mechanics Lab **EFFECTIVE:** Winter 2010 **COURSE DESC:** Introduction to experimental procedures and measurement techniques used in modern experimental mechanics. Builds on prerequisite classroom theory in mechanics of materials and engineering measurements. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 8 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lab QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D and Undergraduate level ME 314 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 496
	VERSION: REV **COURSE:** ME3610 - Engineering Mechanics Lab **EFFECTIVE:** Fall 2012 **COURSE DESC:** Introduction to experimental procedures and measurement techniques used in modern experimental mechanics. Builds on prerequisite classroom theory in mechanics of materials and engineering measurements. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lab SEM PREREQ: ME 3120 & ME 2700 & ME 3600 SPC FEE: Egr&Comp Science Fee (1600), $45 QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D and Undergraduate level ME 314 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 496

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1458 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME375 - Thermodynamics of Materials **EFFECTIVE:** Winter 2010 **COURSE DESC:** Application of classical thermodynamics to engineering materials. Heats of formation and reaction; behavior of solutions; free energy concepts; thermodynamic fundamentals of phase equilibria. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 315 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D (ME 371 can be taken concurrently) QTR EQUIV: ME 375
	VERSION: REV **COURSE:** ME3750 - Thermodynamics of Materials **EFFECTIVE:** Fall 2012 **COURSE DESC:** Application of classical thermodynamics to engineering materials. Heats of formation and reaction; behavior of solutions; free energy concepts; thermodynamic fundamentals of phase equilibria. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2700 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 315 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D (ME 371 can be taken concurrently) QTR EQUIV: ME 375

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1459 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME376 - Physical Metallurgy **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamentals of structure property relations in metals and alloys related to transformations and kinetics. Application to recovery and recrystallization, solidification, precipitation strengthening, and displacive transformations. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 375 Minimum Grade of D QTR EQUIV: ME 376
	VERSION: REV **COURSE:** ME3760 - Diffusion and Kinetics **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course introduces the fundamentals of structure-property relations in metals and alloys related to transformations and kinetics. Application of basic thermodynamics, relation to microstructure, diffusion, interfaces, solidification transformation, and kinetics are covered. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3750 SPC FEE: Egr&Comp Science Fee (1600), $67.5 QTR PREREQ: Undergraduate level ME 375 Minimum Grade of D QTR EQUIV: ME 376

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1401 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME405 - Kinematics & Design-Mechanism **EFFECTIVE:** Winter 2010 **COURSE DESC:** Graphic, analytical, numerical, and symbolic techniques are used in the kinematic and dynamic analysis of machines. Computer-aided design of mechanisms is introduced. Emphasis on the application of these techniques to planar mechanisms. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 213 Minimum Grade of D QTR EQUIV: ME 405
	VERSION: REV **COURSE:** ME4250 - Kinematics & Design-Mechanism **EFFECTIVE:** Fall 2012 **COURSE DESC:** Graphic, analytical, numerical, and symbolic techniques are used in the kinematic and dynamic analysis of machines. Computer-aided design of mechanisms is introduced. Emphasis on the application of these techniques to planar mechanisms. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2210 XLIST: ME 6250 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 213 Minimum Grade of D QTR EQUIV: ME 405

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1392 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME408 - Design Optimization **EFFECTIVE:** Winter 2010 **COURSE DESC:** Concepts of minima and maxima; linear, dynamic, integer, and nonlinear programming; variational methods. Engineering applications are emphasized. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 318 Minimum Grade of D and Undergraduate level ME 360 Minimum Grade of D QTR EQUIV: ME 408
	VERSION: REV **COURSE:** ME4080 - Design Optimization **EFFECTIVE:** Fall 2012 **COURSE DESC:** Concepts of minima and maxima; linear, dynamic, integer, and nonlinear programming; variational methods. Engineering applications are emphasized. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: Undergraduate level ME 3360 Minimum Grade of D and Undergraduate level ME 3210 Minimum Grade of D XLIST: ME 4080 SPC FEE: Egr&Comp Science Fee (1600), $67.5 QTR PREREQ: Undergraduate level ME 318 Minimum Grade of D and Undergraduate level ME 360 Minimum Grade of D QTR EQUIV: ME 408

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1403 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME409 - Aerospace Structures **EFFECTIVE:** Winter 2010 **COURSE DESC:** Stress, deformation, and stability analysis of aerospace structures. Thin-walled members bending, torsion, and shear stresses calculation in multicell structures. Buckling of thin plates. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D QTR EQUIV: ME 409
	VERSION: REV **COURSE:** ME4490 - Aerospace Structures **EFFECTIVE:** Fall 2012 **COURSE DESC:** Stress, deformation, and stability analysis of aerospace structures. Thin-walled members bending, torsion, and shear stresses calculation in multicell structures. Buckling of thin plates. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3120 XLIST: ME 6490 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D QTR EQUIV: ME 409

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1270 **STATUS:** Process **CREATOR:** Nathan Klingbeil **CREATED:** 12/22/09 **IN-PROCESS:** 1/14/10 WorkFlow	**VERSION:** CURR **COURSE:** ME412 - Finite Element Analysis **EFFECTIVE:** Winter 2010 **COURSE DESC:** Finite element formulations for line, surface, bending, torsion, and three dimensional elements. Numerical methods and application of FEM programs in structural design and solid mechanics. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: (MTH 233 or MTH 235) and ME 313 QTR EQUIV: ME 412
	VERSION: REV **COURSE:** ME4120 - Finite Element Analysis **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamentals of finite element analysis as a general numerical method for the solution of boundary value problems in engineering, with an emphasis on structural and solid mechanics. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr SEM PREREQ: (MTH 2350 or (MTH 2330 and MTH 2530)) and ME 3120 XLIST: ME 6120 SPC FEE: Egr, $90 QTR PREREQ: (MTH 233 or MTH 235) and ME 313 QTR EQUIV: ME 412

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1235 **STATUS:** Process **CREATOR:** Nathan Klingbeil **CREATED:** 12/21/09 **IN-PROCESS:** 1/14/10 WorkFlow	**VERSION:** CURR **COURSE:** ME414 - Mechanical Design I **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamental concepts in design for static strength, fatigue, and impact loading; application to selected mechanical components and systems. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: ME 313 QTR EQUIV: ME 414
	VERSION: REV **COURSE:** ME4140 - Mechanical Design I **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamental concepts in design for both static and fatigue loading, with application to selected mechanical components and systems. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3120 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: ME 313 QTR EQUIV: ME 414

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1198 **STATUS:** Process **CREATOR:** Nathan Klingbeil **CREATED:** 12/21/09 **IN-PROCESS:** 1/14/10 WorkFlow	**VERSION:** CURR **COURSE:** ME415 - Mechanical Design II **EFFECTIVE:** Winter 2010 **COURSE DESC:** Design of mechanical elements such as springs, bearings, shafts, gears, clutches, brakes, and flywheels. Students conduct an individual design project. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: ME 414 QTR EQUIV: ME 415
	VERSION: REV **COURSE:** ME4150 - Mechanical Design II **EFFECTIVE:** Fall 2012 **COURSE DESC:** Analysis and design of mechanical elements including screws, welds, springs, bearings, gears, clutches, brakes, flywheels, pulleys and shafts. Students conduct a group design project. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 4140 XLIST: ME 6150 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: ME 414 QTR EQUIV: ME 415

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1170 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 12/19/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME417 - Mechanics of Viscous Fluids **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamental equations of viscous flow for laminar and turbulent flows. Boundary layer analysis. Analytical and numerical solutions of the equation of motion. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: ME 317 with minimum grade of D QTR EQUIV: ME 417
	VERSION: REV **COURSE:** ME4350 - Mechanics of Viscous Fluids **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamental equations of viscous flow for laminar and turbulent flows including the Navier Stokes equations. Boundary layer analysis. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3350 with minimum grade of D XLIST: ME 6350 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: ME 317 with minimum grade of D QTR EQUIV: ME 417

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1397 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME460 - Mechanical Vibrations **EFFECTIVE:** Winter 2010 **COURSE DESC:** Modeling and analysis of single and multi-degree of freedom systems under free and forced vibration and impact, Lagrangian and matrix formulations, energy methods, and introduction to random vibrations. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 360 Minimum Grade of D QTR EQUIV: ME 460
	VERSION: REV **COURSE:** ME4210 - Mechanical Vibrations **EFFECTIVE:** Fall 2012 **COURSE DESC:** Modeling and analysis of single and multi-degree of freedom systems under free and forced vibration and impact, Lagrangian and matrix formulations, energy methods, and introduction to random vibrations. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3210 XLIST: ME 6210 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 360 Minimum Grade of D QTR EQUIV: ME 460

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1414 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME464 - Mechanical Sys Mdlng & Design **EFFECTIVE:** Winter 2010 **COURSE DESC:** This course will teach students how to model complex mechanical systems as a set of simple, linear or nonlinear components for the purpose of design. Students will be introduced to modern computational tools. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 213 Minimum Grade of D QTR EQUIV: ME 464
	VERSION: REV **COURSE:** ME4220 - Mechanical Sys Mdlng & Design **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course will teach students how to model complex mechanical systems as a set of simple, linear or nonlinear components for the purpose of design. Students will be introduced to modern computational tools. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3210 XLIST: ME 6220 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 213 Minimum Grade of D QTR EQUIV: ME 464

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1173 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 12/19/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME423 - Energy Conversion **EFFECTIVE:** Winter 2010 **COURSE DESC:** This course will study the fundamentals of energy and energy conversion, our energy resources, direct energy conversion, heat to work energy conversion, fossil fuel energy conversion, and alternative energy conversion. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 18 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: ME 316 with minimum grade of D QTR EQUIV: ME 423
	VERSION: REV **COURSE:** ME4530 - Energy Conversion **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course will study the fundamentals of energy and energy conversion, the conversion of energy from mechanical, thermal, chemical, and nuclear will be discussed. To demonstrate these energy forms generators, wind, ocean, turbines, direct energy conversion, fossil fuels, biofuels, and nuclear power will be presented. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3320 with minimum grade of D XLIST: ME 6530 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: ME 316 with minimum grade of D QTR EQUIV: ME 423

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1171 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 12/19/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME424 - Solar Engineering **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamentals of solar radiation and how it can be utilized as an energy source. Flat plate collectors, concentrating collectors, solar hot water heating, photovoltaics and thermal energy storage will be discussed. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: ME 318 with minimum D grade QTR EQUIV: ME 424
	VERSION: REV **COURSE:** ME4540 - Solar Thermal Engineering **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamentals of solar radiation and how it can be utilized as a thermal energy source. Solar insolation on a surface, flat plate collectors, concentrating collectors, thermal energy storage, and solar hot water heating will be discussed. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture SEM PREREQ: ME 3360 with minimum D grade XLIST: ME 6540 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: ME 318 with minimum D grade QTR EQUIV: ME 424

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1411 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME442 - Vehicle Engineering **EFFECTIVE:** Winter 2010 **COURSE DESC:** Develops students abilities to derive and solve vehicle equations and introduces how dynamic analysis is used in vehicle design. Various performance criteria, control concepts, and HEVs will be studied. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 213 Minimum Grade of D QTR EQUIV: ME 442
	VERSION: REV **COURSE:** ME4240 - Vehicle Engineering **EFFECTIVE:** Fall 2012 **COURSE DESC:** Develops students abilities to derive and solve vehicle equations and introduces how dynamic analysis is used in vehicle design. Various performance criteria, control concepts, and HEVs will be studied. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2210 XLIST: ME 6240 SPC FEE: Egr&Comp Science Fee (1600), $67.5 QTR PREREQ: Undergraduate level ME 213 Minimum Grade of D QTR EQUIV: ME 442

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1172 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 12/19/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME426 - Wind Power **EFFECTIVE:** Winter 2010 **COURSE DESC:** Power in the wind, the wind turbine and its parts, performance of wind turbines, and economics of wind turbines will be presented. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 18 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: ME 317 with minimum grade of D QTR EQUIV: ME 426
	VERSION: REV **COURSE:** ME4560 - Wind Power **EFFECTIVE:** Fall 2012 **COURSE DESC:** Power in the wind, the wind turbine and its parts, performance of wind turbines, and economics of wind turbines will be presented. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3350 with minimum D grade XLIST: ME 6560 SPC FEE: Egr&Comp Science Fee (1600), $101.25 QTR PREREQ: ME 317 with minimum grade of D QTR EQUIV: ME 426

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1405 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME428 - Fuel Cell Science and Technology **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamentals, technologies, applications of various types of fuel cells, Thermodynamics prediction, electrolyte conduction, electrode kinetics. Polymer electrolyte fuel cells, solid oxide fuel cell, fuel cell stack. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 18 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Science & Math College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 370 Minimum Grade of C and Undergraduate level ME 315 Minimum Grade of C QTR EQUIV: ME 428
	VERSION: REV **COURSE:** ME4580 - Fuel Cell Science and Technology **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamentals, technologies, applications of various types of fuel cells, Thermodynamics prediction, electrolyte conduction, electrode kinetics. Polymer electrolyte fuel cells, solid oxide fuel cell, fuel cell stack. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Science & Math College of Egr & Computer Sci SEM PREREQ: ME 2700 and ME 3310 XLIST: ME 6580 SPC FEE: Egr&Comp Science Fee (1600), $101.25 QTR PREREQ: Undergraduate level ME 370 Minimum Grade of C and Undergraduate level ME 315 Minimum Grade of C QTR EQUIV: ME 428

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1408 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME431 - Aerospace Propulsion **EFFECTIVE:** Winter 2010 **COURSE DESC:** Engine cycle analysis; combustion fundamentals; reciprocating engines, propellers; applications to turbojet, turbofan, turboprop, ramjet, SCRAM jet, and rocket engines. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 317 Minimum Grade of D QTR EQUIV: ME 431
	VERSION: REV **COURSE:** ME4440 - Aerospace Propulsion **EFFECTIVE:** Fall 2012 **COURSE DESC:** Engine cycle analysis; combustion fundamentals; reciprocating engines, propellers; applications to turbojet, turbofan, turboprop, ramjet, SCRAM jet, and rocket engines. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3350 XLIST: ME 6440 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 317 Minimum Grade of D QTR EQUIV: ME 431

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1409 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME433 - Compressible Fluid Flow **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamentals of gas flow in the subsonic to supersonic flow regimes. Wave propagation in compressible medium, one-dimensional isentropic flow with area change, frictional effects, heat transfer effects and two dimensional waves. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 317 Minimum Grade of D QTR EQUIV: ME 433
	VERSION: REV **COURSE:** ME4330 - Compressible Fluid Flow **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamentals of gas flow in the subsonic to supersonic flow regimes. Wave propagation in compressible medium, one-dimensional isentropic flow with area change, frictional effects, heat transfer effects and two dimensional waves. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3350 XLIST: ME 6330 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 317 Minimum Grade of D QTR EQUIV: ME 433

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1424 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/29/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME434 - Computational Fluid Dynamics **EFFECTIVE:** Winter 2010 **COURSE DESC:** Introduction to CFD methods; governing equations, PDEs, finite difference numerical methods, stability analysis, incompressible and compressible flows, subsonic to supersonic flows. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 317 Minimum Grade of D QTR EQUIV: ME 434
	VERSION: REV **COURSE:** ME4340 - Computational Fluid Dynamics **EFFECTIVE:** Fall 2012 **COURSE DESC:** Introduction to CFD methods; governing equations, PDEs, finite difference numerical methods, stability analysis, incompressible and compressible flows, subsonic to supersonic flows. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3350 XLIST: ME 6340 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 317 Minimum Grade of D QTR EQUIV: ME 434

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1412 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME444 - Prn-Internal Combustion Engine **EFFECTIVE:** Winter 2010 **COURSE DESC:** Thermodynamics of I.C. engines, combustion thermodynamics, friction, heat and mass losses, and computer control of the modern fuel-injected I.C. engine. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: (Undergraduate level MTH 233 Minimum Grade of D or Undergraduate level MTH 235 Minimum Grade of D) and Undergraduate level ME 316 Minimum Grade of D and Undergraduate level ME 317 Minimum Grade of D QTR EQUIV: ME 444
	VERSION: REV **COURSE:** ME4360 - Prn-Internal Combustion Engine **EFFECTIVE:** Fall 2012 **COURSE DESC:** Thermodynamics of I.C. engines, combustion thermodynamics, friction, heat and mass losses, and computer control of the modern fuel-injected I.C. engine. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: (Undergraduate level MTH 2330 Minimum Grade of D or Undergraduate level MTH 2350 Minimum Grade of D) and Undergraduate level ME 3320 Minimum Grade of D and Undergraduate level ME 3350 Minimum Grade of D XLIST: ME 6360 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: (Undergraduate level MTH 233 Minimum Grade of D or Undergraduate level MTH 235 Minimum Grade of D) and Undergraduate level ME 316 Minimum Grade of D and Undergraduate level ME 317 Minimum Grade of D QTR EQUIV: ME 444

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1323 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 12/23/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** REV **COURSE:** ME4550 - Geothermal Energy **EFFECTIVE:** Fall 2012 **COURSE DESC:** Techniques for tapping the energy of the earth will be discussed. This will include hot and cold geothermal energy. Use of geothermal energy to produce electricity, for space and district heating and cooling, and for industrial applications will be presented. In addition, geothermal energy's effect on the environment and its economics will be discussed. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture SEM PREREQ: ME 3360 or ME 5360 with minimum grade of D XLIST: ME 6550 QTR PREREQ: ME 318 or ME 518 with minimum grade of D

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1493 **STATUS:** Process **CREATOR:** James Menart **CREATED:** 1/2/10 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** REV **COURSE:** ME4570 - Energy Materials **EFFECTIVE:** Fall 2012 **COURSE DESC:** Students will understand the principles and the materials of advanced electrochemical energy storage systems including batteries, fuel cells, and supercapacitors. In this course, students will gain an understanding of material structures, material composition, and material morphologies in relation to applicable properties for electrochemical energy storage and conversion systems. Students will also be introduced to state-of-the-art materials research and development in these systems. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture SEM PREREQ: ME 2700 with minimum grade of C and ME 3310 or ME 3750 with minimum grade of C XLIST: ME 6570 QTR EQUIV: ME 780

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1474 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/31/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME495 - Thermal-Fluid Science Lab **EFFECTIVE:** Winter 2010 **COURSE DESC:** Experiments in thermodynamics, fluid dynamics and heat transfer will be performed. Lab reports will be written. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 8 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lab RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 314 Minimum Grade of D and Undergraduate level ME 316 Minimum Grade of D and Undergraduate level ME 318 Minimum Grade of D QTR EQUIV: ME 495
	VERSION: REV **COURSE:** ME4610 - Thermal-Fluid Science Lab **EFFECTIVE:** Fall 2012 **COURSE DESC:** Experiments in thermodynamics, fluid dynamics and heat transfer will be performed. Lab reports will be written. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lab RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci ADD INFO: Students have lab every other week, so the course is a 7 week course run over the semester, 2 sections run simultaneously. Students only perform each lab topic once (not twice as it may appear in the course 14 week breakdown). SEM PREREQ: ME 3600, ME 3360 QTR PREREQ: Undergraduate level ME 314 Minimum Grade of D and Undergraduate level ME 316 Minimum Grade of D and Undergraduate level ME 318 Minimum Grade of D QTR EQUIV: ME 495

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1497 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 1/4/10 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** REV **COURSE:** ME4620 - Dynamics and Vibration Lab **EFFECTIVE:** Fall 2012 **COURSE DESC:** Identify test procedures to determine properties of dynamics systems. Conduct experiments, gather data, analyze data, and document findings. Demonstrate concepts of natural frequencies, damping ratios, time constants, poles and zeros. Identify modal properties, rotating unbalance, and predict system response to excitations from identified models. Measure angular and linear displacements/velocities/accelerations and forces/torques. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture/Lab Combination SEM PREREQ: ME 4210 XLIST: ME 6620 QTR PREREQ: ME 460

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1439 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME470 - Failure Analysis **EFFECTIVE:** Winter 2010 **COURSE DESC:** Engineering aspects of failure analysis, failure mechanisms and related environmental factors, and analysis of actual service failure. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 470
	VERSION: REV **COURSE:** ME4740 - Failure Analysis **EFFECTIVE:** Fall 2012 **COURSE DESC:** Engineering aspects of failure analysis, failure mechanisms and related environmental factors, and analysis of actual service failure. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study, Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2700, ME 3120 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 470

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1451 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** REV **COURSE:** ME4700 - Structure and Properties of Materials II **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course covers the fundamental phenomena that control the thermal, optical, electrical and magnetic properties in solid-state materials. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Students in the following colleges: Engineering and Computer Science, Science and Mathematics SEM PREREQ: ME 2700, MTH 2350, MTH 2320

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1452 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME472 - Strctre & Prprts-Engr Polymers **EFFECTIVE:** Winter 2010 **COURSE DESC:** This course introduces polymers as engineering materials and covers fundamental concepts in polymer science and engineering. This includes polymerization processes morphology and crystallinity, thermal transitions, viscoelasticty, rubber elasticity, aging and contemporary issues in polymers. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 370 Minimum Grade of D QTR EQUIV: ME 472
	VERSION: REV **COURSE:** ME4720 - Engineering Polymers **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course introduces polymers as engineering materials and covers fundamental concepts in polymer science and engineering. This includes polymerization processes morphology and crystallinity, thermal transitions, viscoelasticty, rubber elasticity, aging and contemporary issues in polymers. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2700 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 370 Minimum Grade of D QTR EQUIV: ME 472

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1461 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME483 - Introduction to Ceramics **EFFECTIVE:** Winter 2010 **COURSE DESC:** Ceramic and refractory raw materials and products; atomic structure and bonding; structure of crystalline phases and glasses; structural imperfections; diffusion in oxides; phase equilibria; and processing of ceramics. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: May not be enrolled in one of the following Colleges: College of Egr & Computer Sci Must be enrolled in one of the following Majors: Computer Science Engineering QTR PREREQ: Undergraduate level ME 375 Minimum Grade of D QTR EQUIV: ME 483
	VERSION: REV **COURSE:** ME4730 - Engineering Ceramics **EFFECTIVE:** Fall 2012 **COURSE DESC:** Ceramic and refractory raw materials and products; atomic structure and bonding; structure of crystalline phases and glasses; structural imperfections; diffusion and permeability in oxides; and processing of ceramics. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2700 SPC FEE: Egr&Comp Science Fee (1600), $67.5 QTR PREREQ: Undergraduate level ME 375 Minimum Grade of D QTR EQUIV: ME 483

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1450 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME474 - Materials Selection for Mechanical Design **EFFECTIVE:** Winter 2010 **COURSE DESC:** Principles of materials-limited design. Lectures, case histories, open-ended assignments and computer based materials selection tools. Procedures for selection of optimum material(s) under constraints resulting from functional, reliability, safety, cost and environmental issues. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture QTR PREREQ: Undergraduate level ME 371 Minimum Grade of D and Undergraduate level ME 313 Minimum Grade of D QTR EQUIV: ME 474
	VERSION: REV **COURSE:** ME4840 - Materials Selection for Mechanical Design **EFFECTIVE:** Fall 2012 **COURSE DESC:** Principles of materials-limited design. Lectures, case histories, open-ended assignments and computer based materials selection tools. Procedures for selection of optimum material(s) under constraints resulting from functional, reliability, safety, cost and environmental issues. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study, Lecture SEM PREREQ: ME 2700, ME 3120 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 371 Minimum Grade of D and Undergraduate level ME 313 Minimum Grade of D QTR EQUIV: ME 474

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1453 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** REV **COURSE:** ME4750 - Materials Characterization + Lab **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course covers the principles of characterizing materials with respect to crystal structure, micro/Nano structure, and chemical composition using particle or wave-based probes (visible lights, X-rays, and energetic electrons). The interactions between the probes and materials are discussed. Characterization at both qualitative and quantitative level will be elucidated. Laboratory exercises are included **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lab, Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci, Science and Math. SEM PREREQ: ME 2610 and ME 2700 min. grade C

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1448 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME477 - Mechanical Behavior-Materials **EFFECTIVE:** Winter 2010 **COURSE DESC:** Crystal plasticity and single crystal behavior. Introduction to dislocation theory. Strengthening mechanisms and polycrystalline behavior. Introduction to viscoelasticity. Fracture, fatigue, and creep of materials. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 477
	VERSION: REV **COURSE:** ME4770 - Mechanical Behavior of Metals **EFFECTIVE:** Fall 2012 **COURSE DESC:** Crystal plasticity and single crystal behavior. Introduction to dislocation theory. Strengthening mechanisms and polycrystalline behavior. Introduction to fracture, fatigue, and creep of materials. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture SEM PREREQ: ME 2700 grade C, ME 3120 grade C SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 477

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1454 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME479 - Materials Composition **EFFECTIVE:** Winter 2010 **COURSE DESC:** (Also listed as CHM 479.) Survey of principles of corrosion processes with application to metallic and nonmetallic materials. Principles of electro-chemistry are included. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: (Undergraduate level ME 315 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D) or Undergraduate level CHM 453 Minimum Grade of D (CHM 453 can be taken concurrently) QTR EQUIV: ME 479
	VERSION: REV **COURSE:** ME4820 - Corrosion **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course covers the principles of the corrosion and prevention methods from thermodynamics to electrochemical kinetics. Fundamental of passivation, anodic polarization, and cathodic protection will be will be elucidated. Laboratory exercises are included. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2700, and, ME 3310 or 3750 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: (Undergraduate level ME 315 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D) or Undergraduate level CHM 453 Minimum Grade of D (CHM 453 can be taken concurrently) QTR EQUIV: ME 479

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1455 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** REV **COURSE:** ME4830 - Computational Materials Science **EFFECTIVE:** Fall 2012 **COURSE DESC:** This course covers basic theories, methods, and algorithms of atomistic computer simulations of materials, using lectures and computer labs. Classical, semi-empirical, and ab initio quantum mechanical methods are explained. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture/Lab Combination SEM PREREQ: ME 2700

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1440 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME486 - Deformation Processing **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamentals of principal deformation processing systems including forging, extrusion, rolling, and sheet forming; material response and formability; and mechanics and analysis of selected processes. Three hours lecture, two hours lab. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture/Lab Combination QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 486
	VERSION: REV **COURSE:** ME4860 - Metal Forming **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamentals of principal deformation processing systems including forging, extrusion, rolling, and sheet forming; material response and formability; and mechanics and analysis of selected processes. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture/Lab Combination SEM PREREQ: ME 2700, ME 3120 grade C SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 313 Minimum Grade of D and Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 486

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1415 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 12/28/09 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME487 - Machining **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamentals of machining with an emphasis on engineering models of machinability, chip formation, cutting forces and power, and lubrication. Introduction to numerical control machining. Three hours lecture, two hours lab. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 32 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 487
	VERSION: REV **COURSE:** ME4870 - Machining **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamentals of machining with an emphasis on engineering models of machinability, chip formation, cutting forces and power, and lubrication. Introduction to numerical control machining. Three hours lecture, two hours lab. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 24 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr SEM PREREQ: ME 2700 QTR PREREQ: Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 487
	VERSION: REV **COURSE:** ME4870 - Machining **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamentals of machining with an emphasis on engineering models of machinability, chip formation, cutting forces and power, and lubrication. Introduction to numerical control machining. Three hours lecture, two hours lab. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 24 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 2700 QTR PREREQ: Undergraduate level ME 371 Minimum Grade of D QTR EQUIV: ME 487

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1457 **STATUS:** Process **CREATOR:** Raghavan Srinivasan **CREATED:** 12/29/09 **IN-PROCESS:** 1/15/10 WorkFlow	**VERSION:** CURR **COURSE:** ME488 - Powder Processing Materials **EFFECTIVE:** Winter 2010 **COURSE DESC:** Fundamental metallurgy and ceramic science of powder processing techniques. Details of current powder processing technology and methods. Hands-on laboratory experience with both metal and ceramic materials. Three hours lecture, two hours lab. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Lecture RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR PREREQ: Undergraduate level ME 375 Minimum Grade of D QTR EQUIV: ME 488
	VERSION: REV **COURSE:** ME4880 - Powder Processing Materials **EFFECTIVE:** Fall 2012 **COURSE DESC:** Fundamental metallurgy and ceramic science of powder processing techniques. Details of current powder processing technology and methods. Hands-on laboratory experience with both metal and ceramic materials. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SEM PREREQ: ME 3750 SPC FEE: Egr&Comp Science Fee (1600), $90 QTR PREREQ: Undergraduate level ME 375 Minimum Grade of D QTR EQUIV: ME 488

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1547 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 1/9/10 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME499 - Special Problems-Mech & Egr **EFFECTIVE:** Winter 2010 **COURSE DESC:** Special problems in advanced engineering topics. Topics vary. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study, Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR EQUIV: ME 499
	VERSION: REV **COURSE:** ME4993 - Special Problems **EFFECTIVE:** Fall 2012 **COURSE DESC:** Special problems in advanced engineering topics. Topics vary. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 12 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study, Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci. Department and instructor permission. SPC FEE: Egr&Comp Science Fee (1600), $22.5 QTR EQUIV: ME 499

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1548 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 1/9/10 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME499 - Special Problems-Mech & Egr **EFFECTIVE:** Winter 2010 **COURSE DESC:** Special problems in advanced engineering topics. Topics vary. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study, Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR EQUIV: ME 499
	VERSION: REV **COURSE:** ME4994 - Special Problems **EFFECTIVE:** Fall 2012 **COURSE DESC:** Special problems in advanced engineering topics. Topics vary. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 16 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study, Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci. Department and instructor permission. SPC FEE: Egr&Comp Science Fee (1600), $22.5 QTR EQUIV: ME 499

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1717 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 1/17/10 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME499 - Special Problems-Mech & Egr **EFFECTIVE:** Winter 2010 **COURSE DESC:** Special problems in advanced engineering topics. Topics vary. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study, Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR EQUIV: ME 499
	VERSION: REV **COURSE:** ME4991 - Special Problems **EFFECTIVE:** Fall 2012 **COURSE DESC:** Special problems in advanced engineering topics. Topics vary. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SPC FEE: Egr&Comp Science Fee (1600), $22.5 QTR EQUIV: ME 499

Course Inventory Process Tracking - Detail

*** Click on the WorkFlow button below to go to the Work Flow application

FORM	COURSE INFORMATION
1718 **STATUS:** Process **CREATOR:** Joseph Slater **CREATED:** 1/17/10 **IN-PROCESS:** 1/17/10 WorkFlow	**VERSION:** CURR **COURSE:** ME499 - Special Problems-Mech & Egr **EFFECTIVE:** Winter 2010 **COURSE DESC:** Special problems in advanced engineering topics. Topics vary. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 4 **VAR CRED RANGE:** - **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study, Lecture/Lab Combination RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci QTR EQUIV: ME 499
	VERSION: REV **COURSE:** ME4992 - Special Problems **EFFECTIVE:** Fall 2012 **COURSE DESC:** Special problems in advanced engineering topics. Topics vary. **COLLEGE:** College of Egr & Computer Sci **CRED HR:** 8 **VAR CRED RANGE:** 0 - 0 **LEVEL:** Undergraduate **COURSE TYPE:** Independent Study RESTRICTION: Must be enrolled in one of the following Colleges: College of Egr & Computer Sci SPC FEE: Egr&Comp Science Fee (1600), $22.5 QTR EQUIV: ME 499

March 31, 2010

To: Tom Sav, Chair, Undergraduate Curriculum and Academic Policies Committee

From: Joe Law, Asst. VP for Articulation and Transfer

Subject: Clarifying Definition of Transfer Students

The current undergraduate catalog (p. 35) defines transfer students as follows:

> Students who have attempted one or more courses at a regionally accredited college or university before enrolling at WSU are considered transfer students.

In practice, Wright State University has always identified transfer students as high school graduates who have attempted courses between the date of their graduation and their enrollment at Wright State. However, the actual wording of the policy does not make this distinction and—if applied literally—would require that any student with PSEO credit be treated as a transfer student. To align policy with standing practice, I ask that UCAPC approve the following revised definition:

> Students who have attempted one or more courses at a regionally accredited college or university **after graduating from high school and** before enrolling at WSU are considered transfer students.

Please let me know if you need any additional information in support of this request.